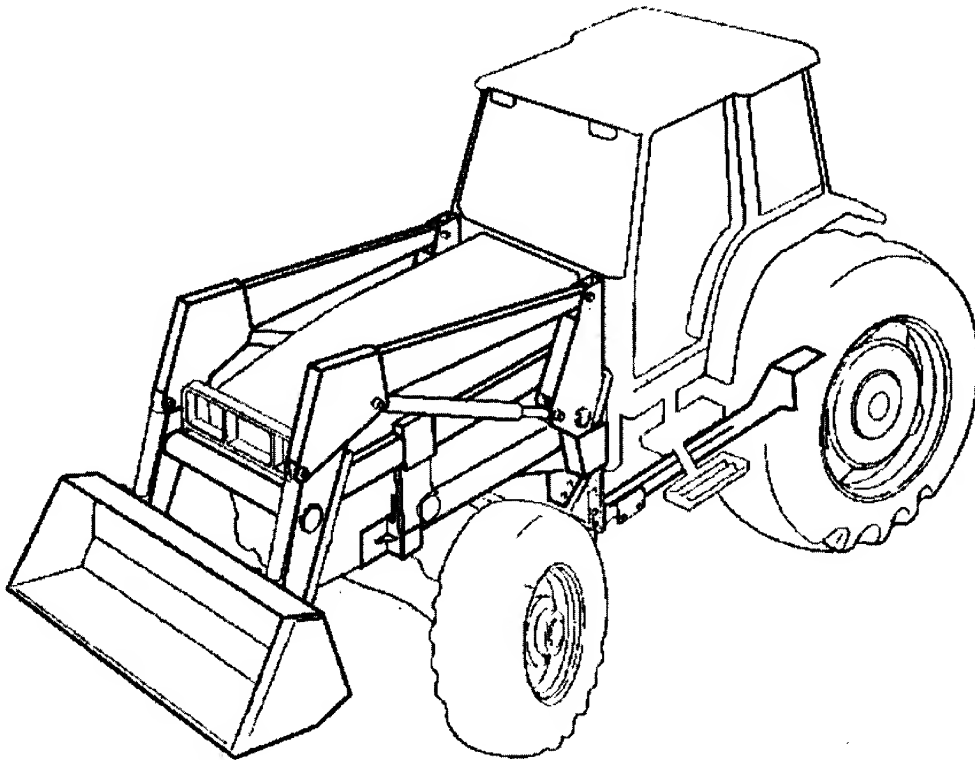


# **ALLIED**

## **295 LOADER**



## **Assembly, Operator's and Parts Manual**

Part No. P1582

07/98

## **WARRANTY REGISTRATION AND POLICY**

Buhler Manufacturing products are warranted for a period of twelve (12) months from original date of purchase, by original purchaser, to be free from defects in material and workmanship under correct, normal agricultural use and proper applications.

Buhler Manufacturing's obligations under this warranty shall be limited to the repair or exchange, at Buhler Manufacturing's option, of any Buhler Manufacturing product or part which proves to be defective as provided. Buhler Manufacturing reserves the right to either inspect the product at the buyer's location or have it returned to the factory for inspection.

The above warranty does not extend to goods damaged or subject to accident, abuse or misuse after shipment from Buhler Manufacturing's factory, nor to goods altered or repaired by anyone other than an authorized Buhler Manufacturing representative.

Buhler Manufacturing makes no Express Warranties other than those which are specifically described. Any description of goods, including any references and specifications in catalogues, circulars and other written material published is for the sole purpose of identifying goods and shall conform to such descriptions. Any sample or model is for illustrative purposes only and does not create an Express Warranty that the goods conform to sample or model shown.

The purchaser is solely responsible for determining suitability of goods sold. This warranty is expressly in lieu of all other warranties expressed or implied. Buhler Manufacturing will in no event be liable for any incidental or consequential damages whatsoever, nor for any sum in excess of the price received for the goods for which liability is claimed.

### **WARRANTY CLAIMS:**

Warranty requests must be prepared on Buhler Manufacturing Warranty Claim Forms with all requested information properly completed. Warranty Claims must be submitted within a thirty (30) day period from date of failure repair.

### **WARRANTY LABOR:**

Any labor subject to warranty **must** be authorized by Buhler Manufacturing. The labor rate for replacing defective parts, where applicable, will be credited at a rate determined by the Company, Buhler Manufacturing.

### **IMPORTANT FACTS:**

Buckets and Bucket Tines Carry No Warranty  
Bent Spears Carry No Warranty  
Snowblower Fan Shafts Carry No Warranty  
Mower Blades Carry No Warranty  
Portable Auger Parts Have Two (2) Year Warranty  
Loader Parts Have Two (2) Year Warranty

**PRINTED IN CANADA**

# 295 Hydraulic Farm Loader

## Operator's Manual Table of Contents

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**IMPORTANT**

***PLEASE READ AND UNDERSTAND THIS MANUAL BEFORE OPERATING LOADER.***

## Loader Specifications

(PER ASAE S301.2)

### Model number: 295 REGULAR

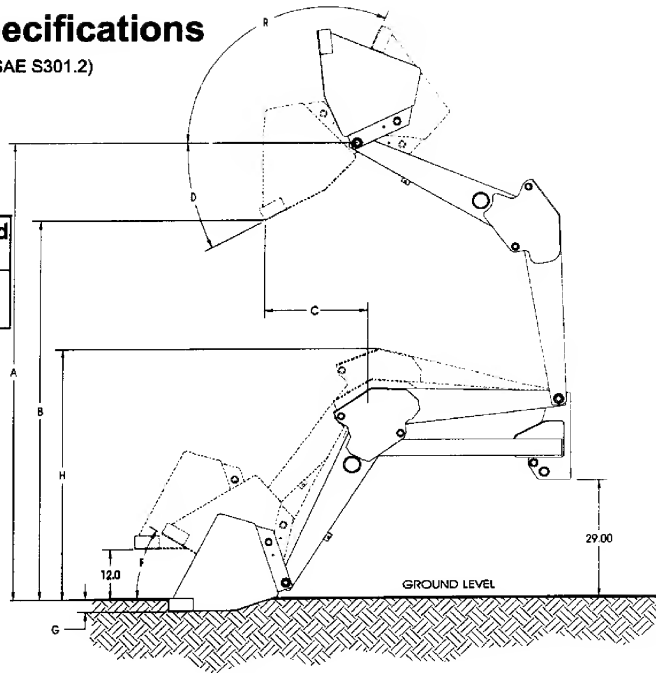
Mounting height: 29.0" (NOMINAL)

Typical range: 27.0" to 31.0

Cylinder specifications [INCHES]

Cylinder	Bore	Rod	Stroke	Extended Length	Retracted Length
Bucket	2.00"	1.25"	20.63"	52.63	32.00
Lifting	2.00"	1.50"	20.63"	53.63	33.00

- A) Maximum lift height (Full Height): 114  
 B) Clearance with bucket dumped: (Full Height): 97  
 C) Reach at maximum height: 22.0"  
 D) Maximum dump angle: 25.0 deg.  
 F) Bucket rollback angle: 32.0 deg.  
 G) Digging depth: 2.2"  
 H) Overall height in carry position: 60.9" (5.2')  
 R) Rollback angle at full height: 117 deg.  
 Calculated breakout force: 1850 lbs  
 Calculated lift capacity: 1460 lbs



#### Notes:

- 1) Calculated values assume 2500 psi lift cylinder pressure.
- 2) Breakout force estimated as per ASAE S301.2 - 4.1.2. (Net payload applied at cutting edge).
- 3) Lift capacity estimated as per ASAE S301.2 - 4.1.1. (Net payload applied at bucket midpoint).

## Torque Specifications

Recommended Torque in Foot Pounds (ft-lbs) & Newton Meters (NM)\*

Standard		Bolt Head					
Bolt Diameter (inches)	Wrench Size (inches)						
					Grade 2 (ft-lbs) (NM)	Grade 5 (ft-lbs) (NM)	Grade 8 (ft-lbs) (NM)
0.250 1/4	7/16				6 7	8 11	12 16
0.313 5/16	1/2				11 15	17 23	25 33
0.375 3/8	9/16				20 27	31 42	44 60
0.438 7/16	5/8				32 43	49 66	70 95
0.500 1/2	3/4				49 66	76 103	106 144
0.563 9/16	7/8				70 95	109 148	153 207
0.625 5/8	15/16				97 131	150 203	212 287
0.750 3/4	1 1/8				144 195	266 360	376 509
0.875 7/8	1 5/16				166 225	430 583	606 821
1.000 1	1 1/2				250 339	644 873	909 1232
1.125 1 1/8	1 11/16				354 480	795 1077	1288 1745
1.250 1 1/4	1 7/8				500 678	1120 1518	1817 2462
1.375 1 3/8	2 1/16				655 887	1470 1992	2382 3228
1.500 1 1/2	2 1/4				870 1179	1950 2642	3161 4283

Metric		Bolt Head					
Bolt Dia. (mm)	Wrench Size (mm)						
					Class 4.6 (ft-lbs) (NM)	Class 8.8 (ft-lbs) (NM)	Class 9.8 (ft-lbs) (NM)
8	13				7.3 10		21.1 29
10	16				14.5 20		42 57
12	18				25 34	74 100	73 99
14	21				40 54	118 160	116 157
16	24				62 84	167 226	181 245
20	30				122 165	325 440	
22	33					443 600	
24	36				211 286	563 763	
27	41					821 1112	
30	46				418 566	1119 1516	

\*Use 80% of the specified torque value for plated or lubricated fasteners.

P1582-02 CDR

## Dealer Pre-delivery Check List

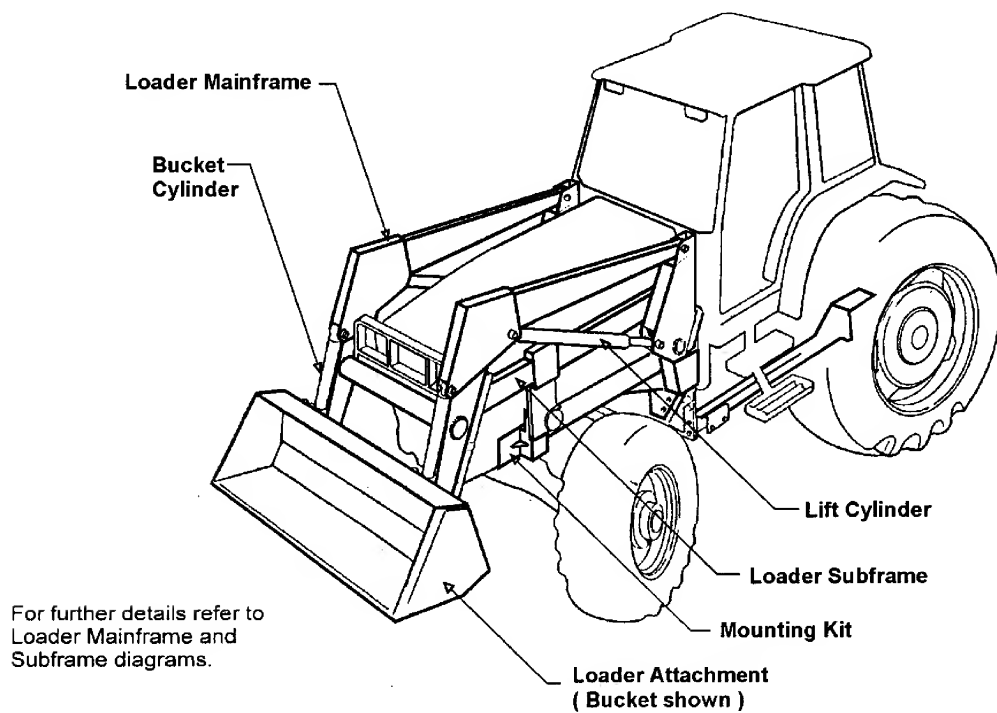
Before delivering this equipment please complete the following check list.

- ☐ 1. The loader has been installed using the appropriate mounting kit for the tractor and loader.
- ☐ 2. The hydraulic system installed is appropriate for the tractor and loader.
- ☐ 3. The loader is properly installed.
- ☐ 4. All bolts are tightened to the torque specifications shown in the torque chart.
- ☐ 5. All safety decals are readable.
- ☐ 6. The loader has been tested and operates properly.
- ☐ 7. The operator's manual has been delivered to the owner who has been instructed on the safe and proper use of the loader.

Dealer's Signature \_\_\_\_\_

This Check List is to remain in this Owner's Manual and is the responsibility of the Dealer to complete before delivery to the customer.

### Loader Identification Diagram

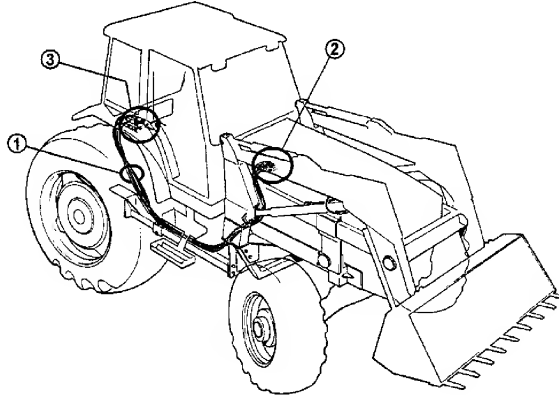


## Hydraulic ( Hose Kit ) Identification Diagrams

### HOSE KIT "A"

Loader powered by the tractor remotes "3".

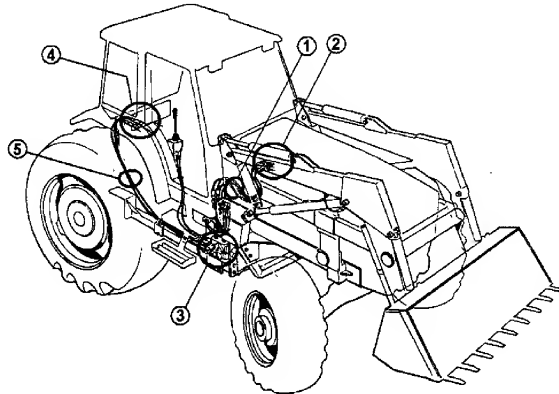
Consists of four hoses "1" leading from loader tubing "2" to tractor remote couplers "3".



### HOSE KIT "B"

Loader operated by an external OC or CC valve "3" that is powered from the tractor remotes "4".

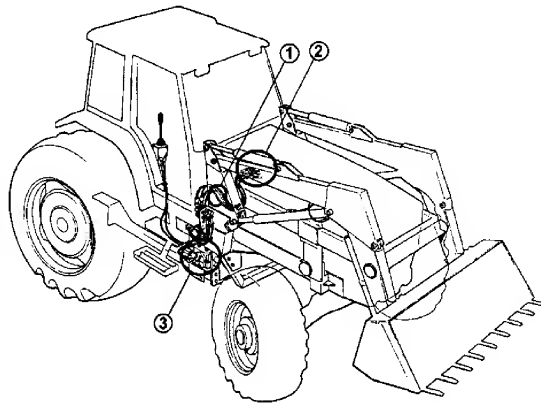
Consists of four hoses "1" leading from loader tubing "2" to external mounted valve "3" and two hoses "5" from valve "3" to tractor couplers "4". Use the valve type shown with hose Kit "B".



### HOSE KIT "C"

Loader operated by an external valve "3" that is plumbed into the tractor hydraulic system.

Consists of four hoses "1" leading from loader tubing "2" to the external mounted valve "3" plus the necessary fittings, hoses and adapter blocks (if necessary) to tap into tractor hydraulic system. Use valve type shown with hose Kit "C".





## IMPORTANT PRECAUTIONS



### DANGER



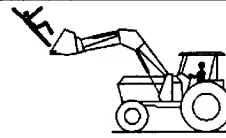
#### ELECTROCUTION HAZARD

To prevent serious injury or death:

- Stay away from power lines and cables. Electrocution can occur with or without direct contact.



### WARNING



#### FALLING HAZARD

To prevent serious injury or death:

- Do not lift, carry or allow anyone to ride on or work from any portion of loader.



### WARNING



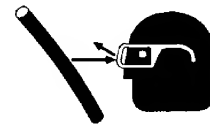
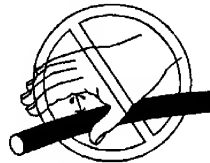
#### CRUSHING HAZARD

To prevent serious injury or death:

- Do not handle round bales or other shiftable objects unless loader is equipped with an attachment designed for this purpose.
- Do not handle loose loads that are not secured.
- Do not lift load higher than necessary.



### WARNING



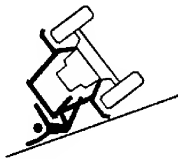
#### HIGH-PRESSURE FLUID

To prevent serious injury or death:

- Relieve pressure on system before repairing or adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
- Keep all components in good repair.
- If hydraulic fluid penetrates skin, obtain medical treatment IMMEDIATELY.



### WARNING



#### ROLL-OVER HAZARD

To prevent serious injury or death:

- Move and turn tractor at low speed.
- Carry load no higher than necessary to clear the ground when transporting.
- Add wheel ballast or rear weight for stability.
- Move wheels to widest possible settings to increase stability.
- It is recommended the tractor be equipped with a rollover protective structure (ROPS).



### WARNING



#### CRUSHING HAZARD

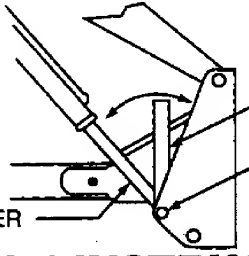
To prevent serious injury or death:

- Do not allow bystanders in loader work area.
- Lower loader to the ground before leaving seat.
- Do not walk or work under raised loader. For servicing, refer to operator's manual.
- Read and understand operator's manual before operating loader.

## Safety

### BLOCKING RAISED LOADER

- Never work beneath raised loader unless it is securely supported. The following are instructions for the Lift Lock Supports;



**LIFT LOCK INSTRUCTIONS**

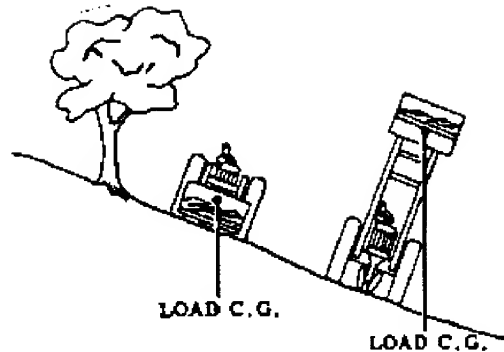
TO ENGAGE SUPPORTS:	TO DISENGAGE SUPPORTS:
1. RAISE LOADER PAST LEVEL POSITION.	1. RAISE LOADER OFF LIFT LOCK SUPPORTS.
2. SECURE SUPPORTS INTO POSITION ON THE CLEVIS AND CYLINDER SHAFT.	2. SWING LOCK SUPPORTS UP INTO STORAGE POSITION.
3. SLOWLY LOWER FULL WEIGHT OF LOADER ONTO SUPPORTS.	

**⚠ IMPORTANT:**

- THE BUCKET MUST BE EMPTY.
- ALWAYS USE BOTH SUPPORTS.
- DO NOT USE WHEN TRACTOR IS MOVING.
- DO NOT STORE LIFT LOCK SUPPORTS OTHER THAN WHERE INDICATED.
- REPLACE IMMEDIATELY IF DAMAGED.

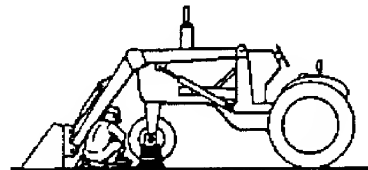
F 112982

- Do not pivot or turn tractor with bucket raised, except at a minimum speed. Always make allowance for length of loader when making turns.
- Never leave tractor unattended while the bucket is raised. Always lower bucket to the ground and shut off before leaving tractor seat.
- Do not walk under raised bucket.
- Never operate loader while operator is not seated in the driver's seat on the tractor.
- Keep tractor on solid ground. Loose fill, rocks and holes can be dangerous for loader operation or movement.
- Never operate a loader with frayed or damaged hoses or leaking fittings.
- For stability, rear wheels of tractor should be set a maximum convenient spacing and add ballast to rear wheels.



- Do not raise bucket to extreme heights while tractor is on an incline. Carry loader low for safety. Note in above illustration how load center moves out when bucket is raised on a slope. Be alert for terrain changes and adjust bucket accordingly. Keep bucket low, no more than one foot high, as long as possible.

Note: A pivoting front axle acts like a three-wheeled tractor until the stops hit the axle.



- If lift cylinders are used to raise front wheels of tractor for service, place blocks under tractor before working around front end.

### THIS SAFETY ALERT SYMBOL MEANS:

**ATTENTION!**

**BECOME ALERT!**

**YOUR SAFETY IS INVOLVED!**





## Safety Decals

These decals are located as shown on the Decal Location diagram and the Sub-Frame Assembly diagram.


 **WARNING**



**OVERHEAD HAZARD**  
**STAY AWAY FROM UNDER LIFT**  
**ARMS AND BUCKET**

To prevent serious injury or death:

1. Do not stand or work under a raised loader, unless supported.
2. Support bucket and lift arms before working under loader.
3. Lower loader to the ground before leaving seat.

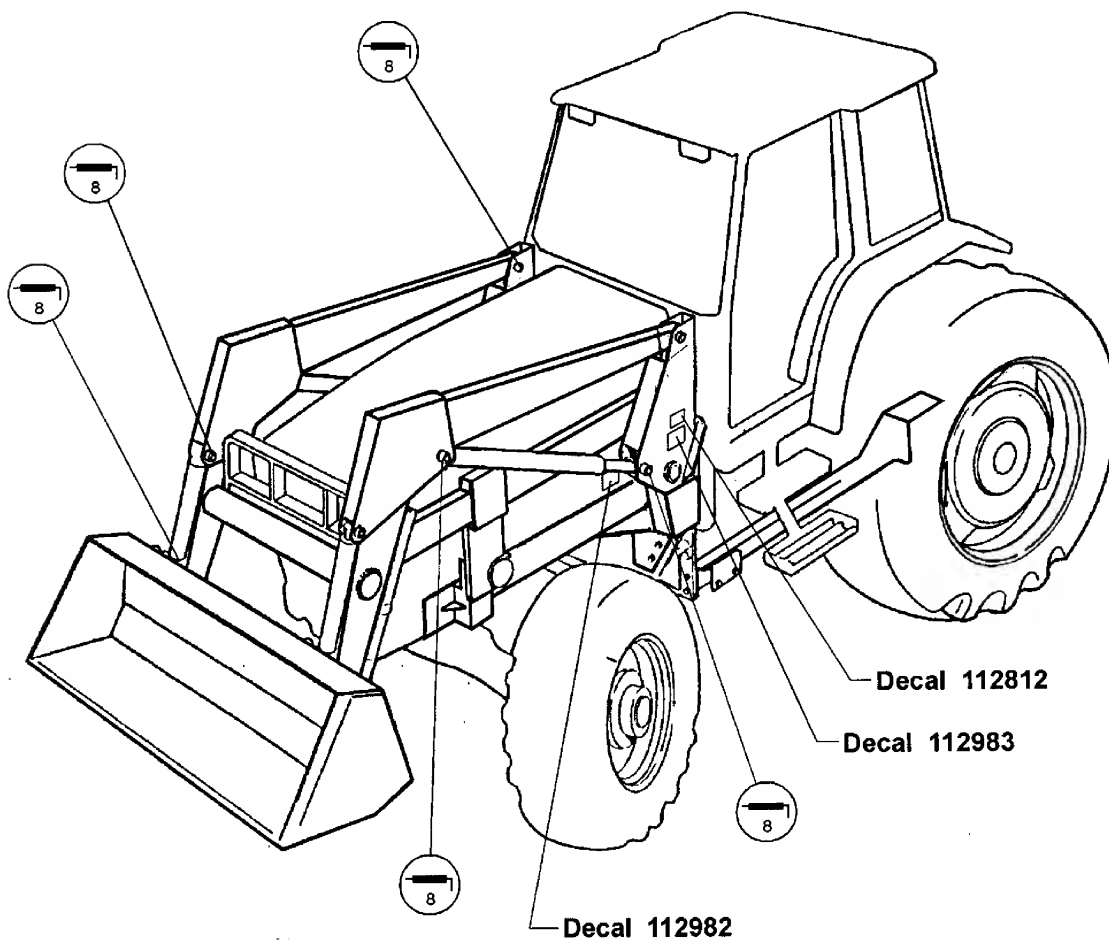
 **CAUTION**


1. Read Operator's Manual before operating.
2. Move and turn tractor at low speed.
3. Carry loader arms at a low position during transport.
4. Lower loader arms, stop engine and lock brakes before leaving operator seat.
5. Do not stand or work under raised loader, unless properly supported.
6. Add recommended wheel ballast or rear weight for stability.
7. Move wheels to widest recommended settings to increase stability.
8. Do not handle large round bales or other shiftable objects unless loader is equipped with a grapple fork.
9. Do not use loader to move or carry people.
10. Stay away from power lines. Electrocution can occur without direct contact.
11. Review safety instructions annually.

## Lubrication and Decal Location Diagram

Lubricate tractor hydraulic unit as indicated in tractor Operator's Manual. Keep the bushings on lift arm pivots and cylinders well lubricated. Use high grade lithium grease every 8 hours of operation.

NOTE: Frequent greasing will prevent contaminants from migrating between the pins and bushings.



 Symbol indicating grease after every 8 hours of operation.

## General Instructions and Information

As with any piece of equipment, the care with which your loader is operated and maintained will greatly affect its life and the safety of the people using it.

1. Keep all pivots well lubricated for longer bushing life. Inspect every 500 hours of operation for wear.
2. Periodically check all bolts for tightness. If any bolt is damaged, replace it with a bolt of equivalent grade or strength.
3. Follow the recommendations of the tractor manufacturer in regards to the quantity of oil used.
4. Check oil level frequently to ensure the system is full.
5. When making an oil check, be sure lift cylinders are retracted.
6. Before operating the loader, particularly if the loader is left standing for any length of time, check the hydraulic system and oil level.
7. When installing hydraulics, follow the circuit carefully. See hydraulic hook-up section and make sure the hoses do not contact any hot manifolds or sharp edges on tractor. After assembly, raise the loader slowly and check to make sure that the hoses do not bind in all positions.



### CAUTION

The pressure of the relief and open centre valves is set at the factory. Do not tamper with the setting. Serious injury to the operator or damage to the loader or tractor hydraulics may occur. Warranty will be void if the loader is operated above recommended pressure.

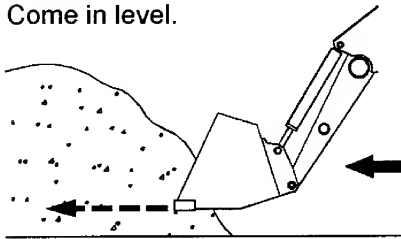
8. When servicing any hydraulic components, care must be taken to prevent any foreign matter from entering the system.
9. Do not neglect oil leaks. Leaks affect loader operation, are dangerous and can result in personal injury or damage to the hydraulic system.
10. Never leave the cylinder shafts exposed when loader is not in use.
11. Worn or damaged components should be replaced as soon as possible with only the manufacturer's recommended component or equivalent.

## Operating Suggestions For Loading

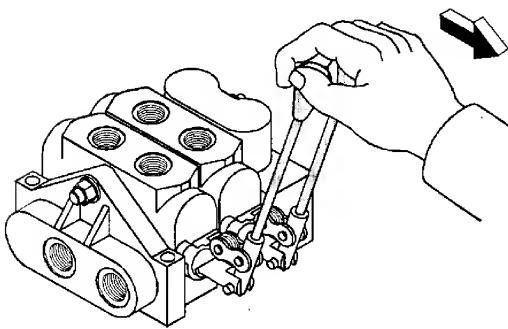
When handling heavy loads, be sure to lower lift arms slowly. This is known as feathering the hydraulic lever. If load is lowered too fast and stopped suddenly, excessive shock loads are created which can damage loader or tractor.

When loading bucket, drive straight into material. Attempting to turn tractor while loading bucket can cause damage to both the loader and tractor.

Come in level.



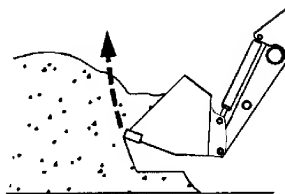
NOTE: Bottom surface of bucket is parallel to line on motion.



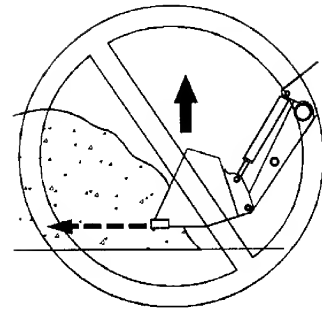
Work both levers back to direct pressure to both cylinders.

Combined action of lift and bucket cylinders increases loading efficiency.

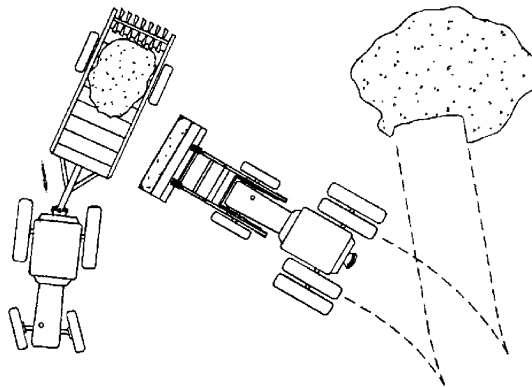
DO THIS!



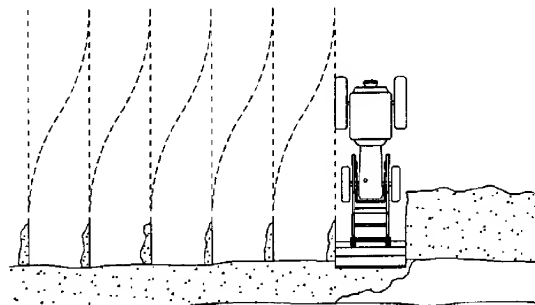
NOT THIS!



A straight bottom offers more resistance to lift.



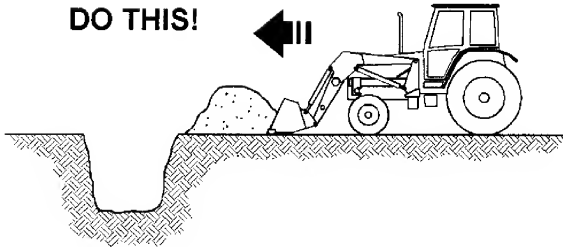
To increase loading efficiency, minimize angle of turn and length to run between pile and spreader.



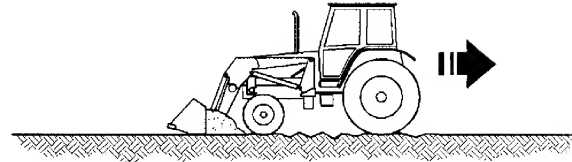
Leave material which drifts over side of bucket for final clean-up.

## Operating Suggestions For Backfilling

**DO THIS!**

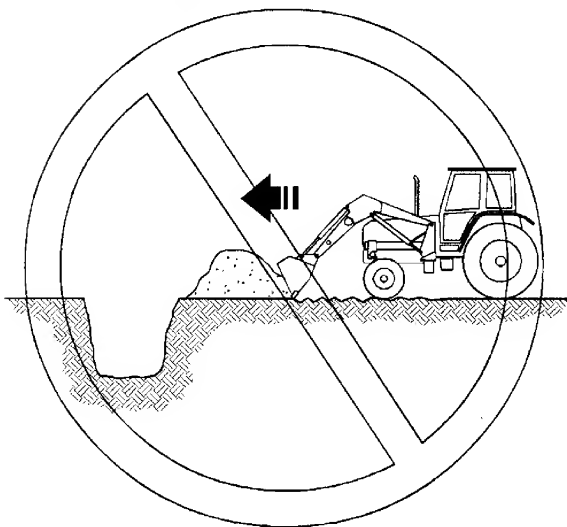


When backfilling, approach pile with a flat bucket. Leave dirt in bucket. Dumping on each pass wastes time.



Backgrade work surface with a loaded bucket. Release all pressure on lift cylinders so full weight of bucket is scraping ground. Use heel of bucket.

**NOT THIS!**



DO NOT use bucket in dumped position for bulldozing. This will only impose severe shock loading on the bucket cylinders and make it more difficult to maintain a level grade.

**WARNING!**

**DO NOT USE LOADER  
AS BATTERING RAM!**



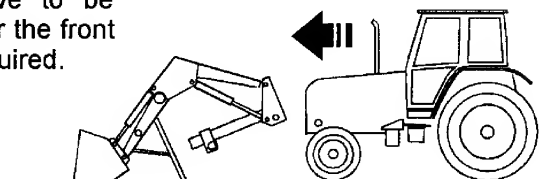
**SAFETY: FIRST, LAST, ALWAYS!**

## Attaching the Loader to Your Tractor

1. Position the tractor as centrally as possible and drive, using lowest gear possible, into the loader frame until hoses can be connected.
2. Couple up the hydraulic hose lines to the loader or tractor valve ensuring proper function (see Operator and Maintenance Section).

**NOTE:** When mounting the loader for the first time, slowly work the cylinders back and forth, so that most of the air is removed. Loosen the bolts on the hooks so that they can be moved. Also, check that the nuts in the rear of the subframes are in line with the holes.

3. On some tractors, the lift cylinders may have to be extended slightly, so that the subframes can clear the front axle. Do not extend the cylinders more than is required.

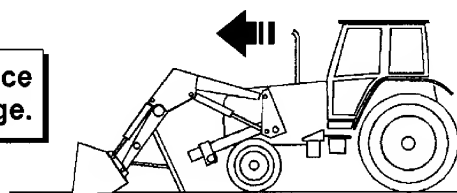


**IMPORTANT!** On HSL loaders, the bucket will dump at the same time the loader is lowered. Therefore, operate both hydraulic levers together.

4. Drive the tractor ahead until the subframe is past the front axle and the front hook is close to mounting boss.



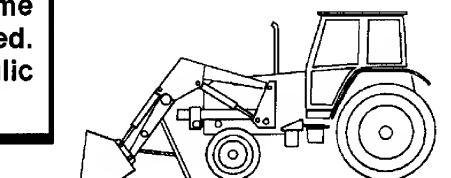
**WARNING!** Check front grill clearance during installation to avoid tractor damage.



5. Retract or extend the lift cylinders to line up the front hook with the mounting boss.

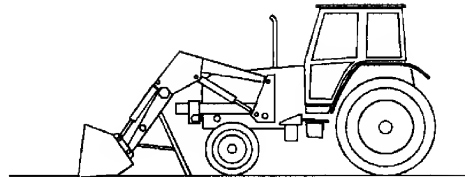


**IMPORTANT!** On HSL loaders, the bucket will roll back at the same time the loader is lowered. Therefore, operate both hydraulic levers together.

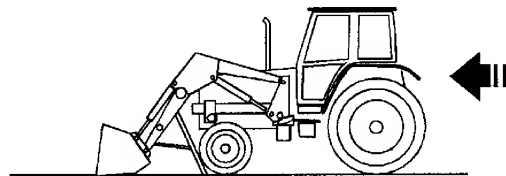


## Attaching the Loader to Your Tractor (Continued)

6. When the hook is lined up, dump or roll back the bucket to lower or raise the subframe upright to align with the mounting boot.

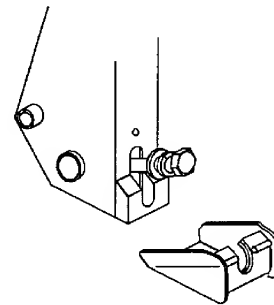


7. Continue to drive the tractor forward until the subframe uprights are seated in the boot.



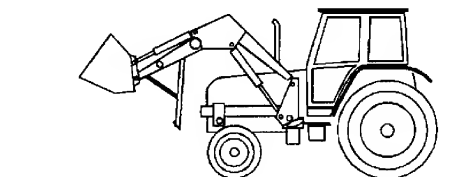
8. Secure the subframe uprights with the bolts and washers. Torque to 500 ft-lbs.

**IMPORTANT:** When mounting for the first time, the front hook bolts will have to be tightened after positioning the hook directly over the mounting boss (most rearward position).



9. Raise the loader and lock the support stand tubes into the up position.

**NOTE:** When mounting for the first time, raise the loader slowly and check to make sure that the hoses do not bind or become pinched in all positions. Work the loader and bucket up and down to work out all the air in the hydraulics. Check and refill the tractor's hydraulic system.



## Removing the Loader from Your Tractor

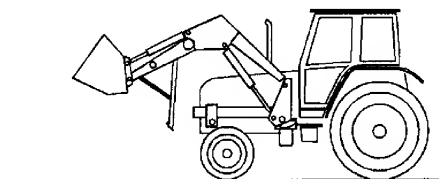


**WARNING !** When removing the loader, it must be fitted with a bucket or other suitable attachment to give the frame stability after removal. If this is not done, the frame will not remain standing.

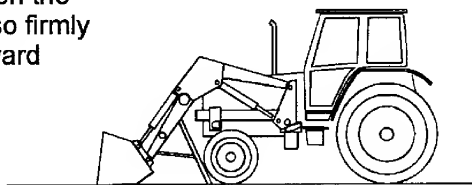


**IMPORTANT !** Always remove the loader on firm, level ground (away from children's play areas and high traffic areas). This makes attaching and removing much faster and easier. It also makes the free standing loader more stable.

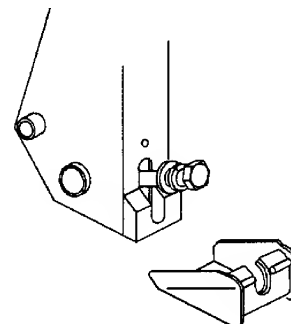
1. Raise the loader, lower support stand tubes and lock into position.



2. Lower the loader until the stand tubes are firmly on the ground and then dump the bucket so that it is also firmly on the ground. There should be a slightly downward pressure.



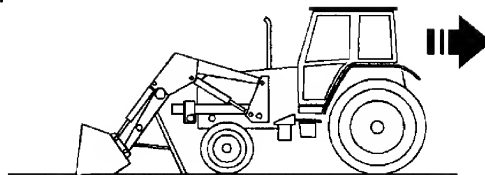
3. Loosen the bolts from the rear of the subframe boots and swing bolt up into lock position.





## Removing the Loader from Your Tractor (Continued)

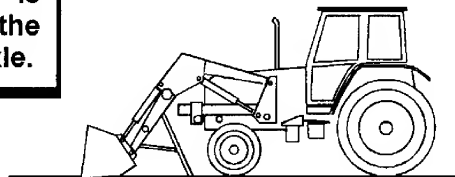
4. Roll back the bucket slightly and simultaneously extend or retract the lift cylinders to free hooks from spools. Then slowly back up the tractor.



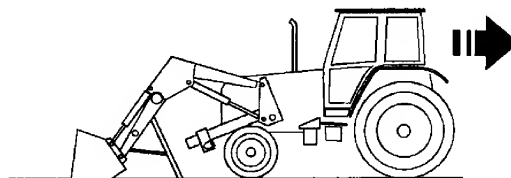
5. Once the subframe is clear of the boot and the hook is clear of the mounting boss, roll back the bucket all the way. This raises the rear uprights of the loader.



**NOTE:** On some mountings, the lift cylinders must be extended more while the tractor is backing up, so that the subframes clear the front axle.

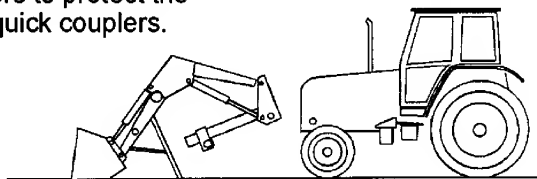


6. Continue backing up until the loader is clear.



**CAUTION!** Be sure the hoses **DO NOT** get pinched or catch on any frame members while backing up.

7. After the loader is clear, retract the lift cylinders to protect the shafts and disconnect the hydraulic lines at quick couplers.



## Operation and Maintenance

### GENERAL

Refer to tractor Operator's Manual for operating information on the tractor's hydraulic system.

Hydraulic systems using auxiliary valves should have them located for easy reach from the tractor seat. Hoses should be connected in such a manner that pushing forward on valve handles lowers the boom or dumps the bucket.

**CAUTION:** Always connect boom hoses to float section.

Weight added to rear of tractor provides better traction and an easier, more efficient loader operation. Extra weight, along with widening the rear wheels, reduces the risk of roll-over.

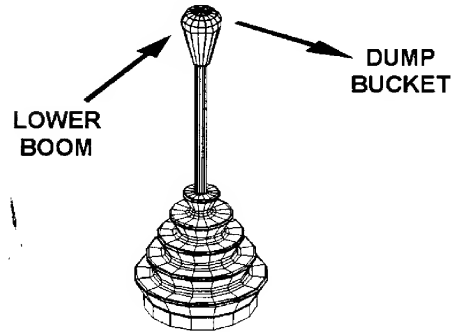
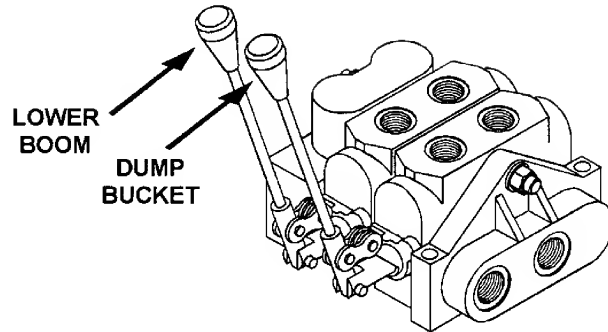


### **WARNING**

The smaller the tractor is, the easier it will roll. We recommend that weight be added to rear tires with liquid or by the installation of rear wheel weights. Where additional weight is required, a counterweight box can be fabricated for tractors with three-point hitches.

Extra weight can also be added by the use of a heavy implement mounted to the three-point hitch.

A roll-over protective structure is also recommended.



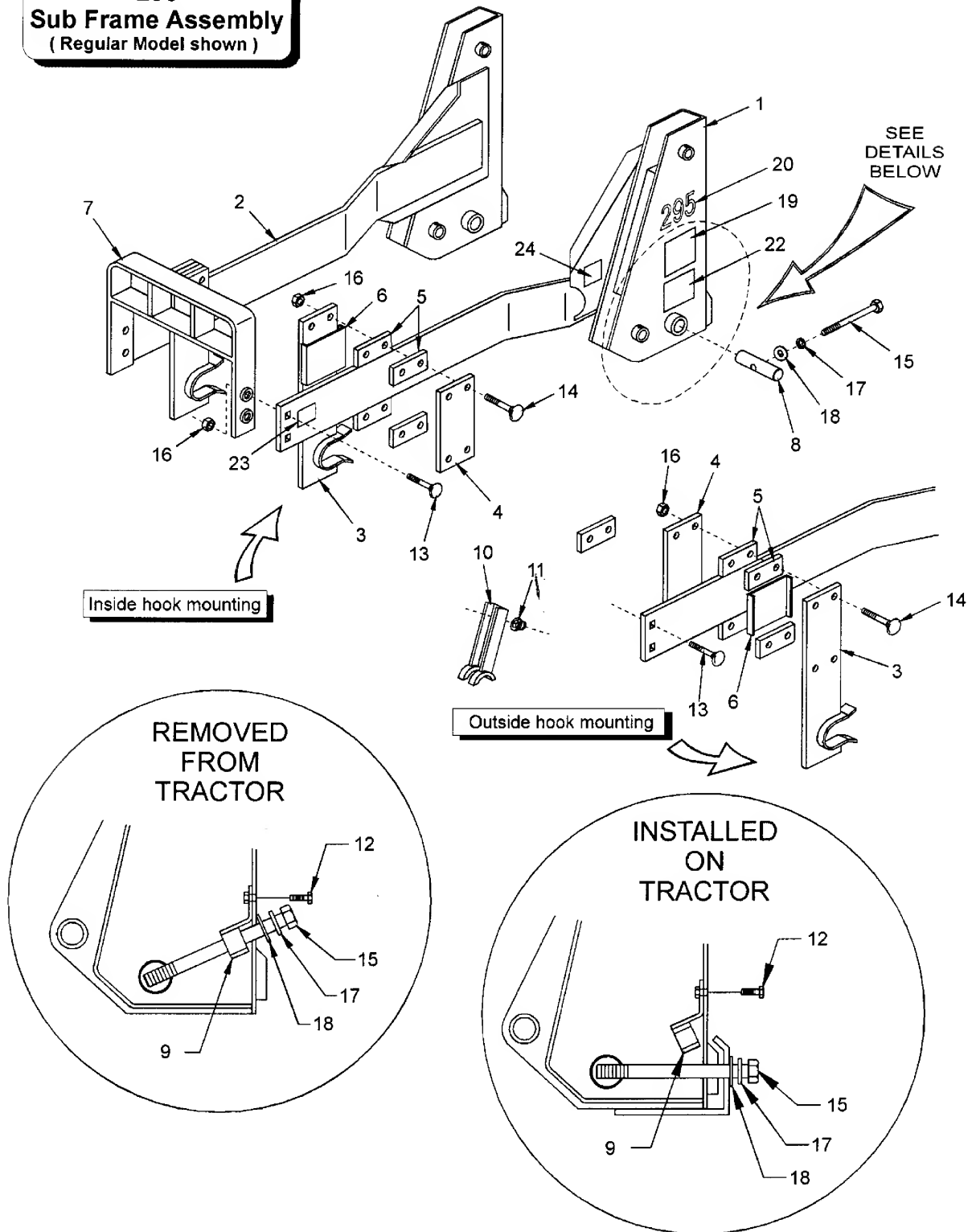
In cold weather, operate the tractor's engine at idle speed until the hydraulic fluid is warmed up. High engine speed when the hydraulic fluid is cold will cause the pump to wear prematurely.

Under normal conditions, operate the tractor's engine at 1/2 throttle. Shift the tractor into a low gear before entering a pile of material to minimize strain on loader arms.

## Trouble Shooting

PROBLEM	POSSIBLE CAUSE	REMEDY
Loader slow and/or will not dump.	Quick couplers leaking	Check connections and compatibility or replace.
	Hydraulic oil too heavy.	Change or replace filter.
	Oil filter plugged.	Clean or replace filter.
	Hydraulic pump worn.	Repair or replace pump.
	Oil line restricted or leaking.	Check all hoses and tubes for leaks, damage or restrictions. Replace damaged or restricted hoses or tube lines
Loader chatters or vibrates when raising and lowering.	Control valve does not shift properly.	Inspect, clean, repair or replace valve.
	Air in hydraulic system.	Cycle lift cylinders and bucket cylinders several times to free system of air.
	Cylinder leaks internally.	Replace seals.
	Faulty valve.	Repair or replace valve.
	Air leak in pump inlet line.	Check, tighten or replace inlet line.
Pump noisy	Air in hydraulic system	Cycle lift cylinders and bucket cylinders.
	Oil level too low.	Add oil as required.
	Worn bushings and/or pins.	Replace bushings and/or pins.
Oil leaks.	Inlet line restricted or leaking.	Check for air leaks, restrictions or collapsed hose. Tighten or replace hose. Clean filter if necessary.
	Oil level too low.	Add oil as required.
	Pump worn or damaged.	Repair or replace pump.
	Damaged fittings or hoses.	Replace damaged parts.
	Loose connections.	Tighten fittings.
Insufficient lift capacity	Worn or damaged O-ring wiper seal in cylinder rod end.	Install a seal repair kit.
	Worn or damaged O-rings in valve.	Install an O-ring repair kit.
	Improper hydraulic pump operation.	Repair or replace pump.
Slow leakdown	Load is greater than boom lift capacity.	Check loader specifications.
	Internal boom cylinder leakage.	Replace any worn parts and install a seal repair kit.
	Improper hydraulic valve operation.	Repair or replace valve.
Excessive wear on bottom oil bucket and wear pads	Worn control valve.	Have authorized dealer replace seals.
	Worn cylinder piston seals.	Have authorized dealer replace seals.
Hydraulic cylinders. inoperative.	Float position not used while operating loader	Use float position provided on valve.
Pump operating continually on closed center tractor hydraulic system.	Hose from control valve improperly connected.	Refer to plumbing diagrams.
	Tractor control valve relief stuck open	See your tractor manual for proper adjustment or loader dealer for loader valve. (3000 PSI is maximum pressure relief setting recommended.)
Loader lift and bucket tilt controls do not work according to decal.	Hydraulic control valve set too low.	Adjust valve in accordance with manual.
	Hoses improperly connected.	Replace relief valve with closed center plug and plug the power beyond adapter on valve.
Valve noise and/or hot.	Open center control valve on closed center tractor.	Replace relief valve with closed center plug and plug the power beyond adapter on valve.
Tractor loads/pump squeals.	Closed center control valve on open center tractor.	Install open center plug on optional valve. Replace closed center plug with relief and install short plug in place of powerbeyond adapter.

**295**  
**Sub Frame Assembly**  
 ( Regular Model shown )

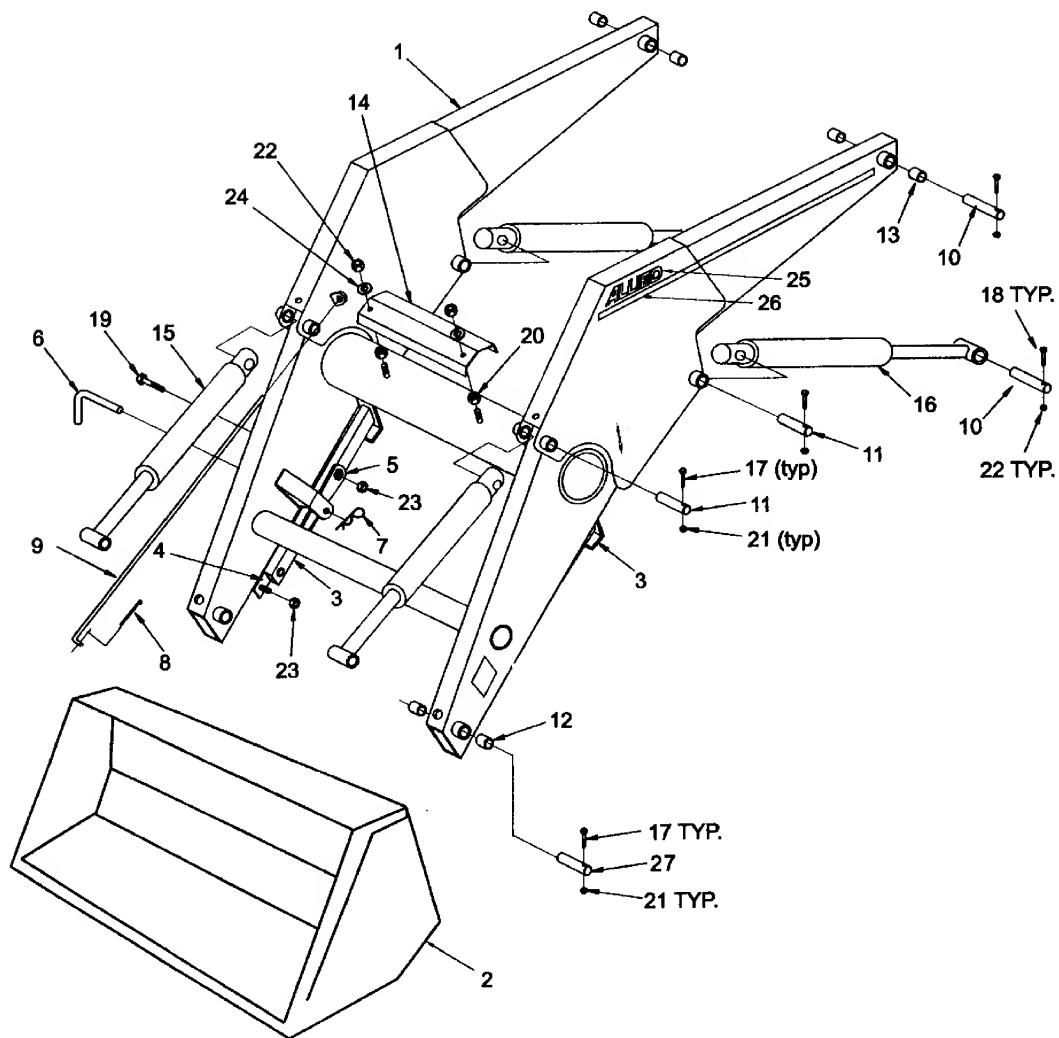


**295****Sub Frame Parts Table**

Item	Part No.	Description	295
1	31627	295 Sub Frame Weldment Left	1
2	31628	295 Sub Frame Weldment Right	1
3	113555	Hook Weldment	2
4	113556	Plate Clamp	2
5	113557	Spacer Block	8
6	113558	Shim	2
7	113444	Cross Member Weldment	1
8	112642	Shaft Pivot 1.750 Dia. x 5.500 Long	2
9	113281	Bolt Retainer Weldment	2
10	113746	Loader Lift Lock Weldment	2
11	812717	Grommet 0.375 ID x 1.000 OD x .13	2
12	812026	Bolt Hex 0.313nc x 1.000 gr5 pl	2
13	813059	Bolt Car. 0.500 x 2.000 gr5 pl	4
14	813060	Bolt Hex 0.500 x 3.000 gr5 pl	8
15	812939	Bolt Hex 0.875 x 10.000 gr5 pl	2
16	81966	Nut Lock (nylon) 0.500nc pl	12
17	81723	Washer Lock 0.875 pl	2
18	112730	Washer Boot	2
19	112812	*Decal - General Caution	2
20	113798	*Decal - 295 x 1.400	2
21	112982	*Decal - Lift Lock Instruction	2
22	112983	*Decal - Warning Overhead Hazard	2
23	113474	*Decal - Cross Member Caution	2

\*Part of decal replacement kit X1584

**295**  
**Main Frame Assembly**  
 (Regular Model shown)



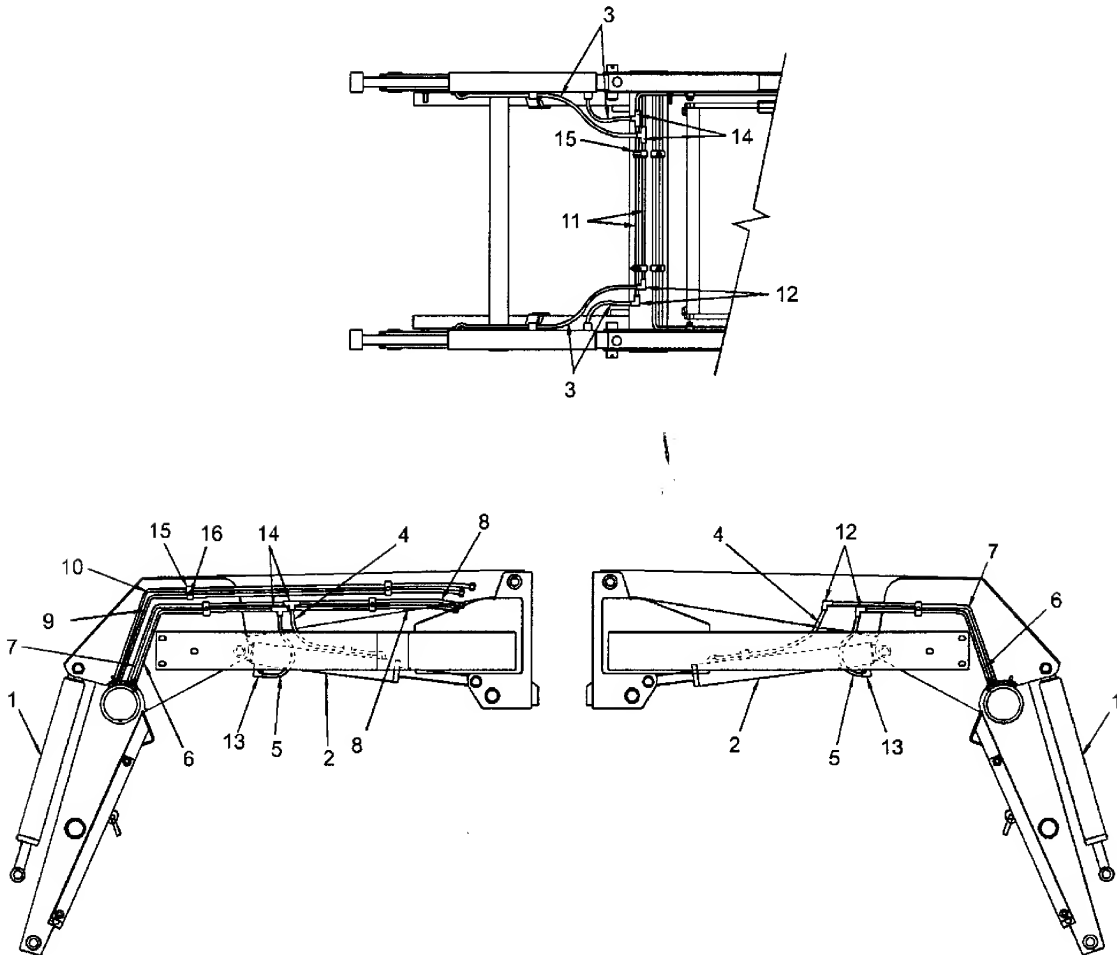
# 295

## Main Frame Parts Table

Item	Part No.	Description	295
1	31625	295 Main Frame Weldment	1
2		48.0" Bucket	1
2		60.0" Bucket	1
3	114534	Stand Weldment	2
4	114536	Strap Stand	2
5	24329	Wrench Mounting	1
6	110907	Pin 0.625 Dia. Stand	2
7	12779	Hair Pin Clip #9 Western Wire	4
8	84162	Cotter Pin 5/32 x 1.000	1
9	114524	Leveling Rod (48.0")	1
10	112954	Pin 1.250 Dia. x 6.750 Long	4
11	113797	Pin 1.000 Dia. x 5.000 Long	4
12	110871	Bushing 1.000 ID x 1.250 OD x 1.375 LG	4
13	113766	Bushing 1.250 ID x 1.500 OD x 1.375 Long	4
14	24242	Tube Cover	1
15		Bucket Cylinder	2
16		Lift Cylinder	2
17	810640	Bolt Hex 0.313nc x 2.00 gr5 pl	4
18	81581	Bolt Hex 0.375nc x 2.500 gr5 pl	8
19	81669	Bolt Hex 0.625nc x 3.500 gr5 pl	2
20	81592	Nut Hex 0.375nc pl	4
21	81568	Nut Lock (nylon) 0.313nc pl	4
22	113798	Nut Lock (nylon) 0.375nc pl	12
23	81967	Nut Lock (nylon) 0.625nc pl	4
24	81570	Washer Flat Std 0.375 hs pl	4
25	112614	*Decal - Allied x 1.750	2
26	52281-000	*Bright Orange Scotchcal #72368	8.5ft
27	104719	Pin 1.000 Dia. x 6.000 Long	4

\*Part of decal replacement kit X1296

# 295 Loader Hydraulic Plumbing Diagram (Regular Model shown)





**295 LOADER****Plumbing Parts Table**

<b>Item</b>	<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>
1		Bucket Cylinder	2
2		Lift Cylinder	2
3	812973	3/8 x 12 Hose 3/4 MORB x 3/4 SWFJIC	4
4	811754	3/8 x 18 Hose 3/4 MORB x 3/4 SWFJIC	2
5	812947	3/8 x 22 Hose 3/4 SWFJIC x 3/4 SWFJIC	2
6	114526	Tubing - Lift Cyl. Bottom Raise	1
7	114527	Tubing - Lift Cyl. Top Drop	1
8	113031	Tubing - Lift Cyl. Top Drop Common (23.0")	2
9	114528	Tubing - Bucket Cyl. Bottom Rollback	1
10	114529	Tubing - Bucket Cyl. Top Dump	1
11	112837	Tubing - Bucket Cyl. Cross Tube	2
12	812128	Elbow 90 3/4 MJIC x 3/4 MJIC	4
13	811414	Elbow 90 3/4 MORB x 3/4 MJIC	2
14	812069	Tee 3/4 MJIC	4
15	11362	Clip Pipe Std.	11
16	81344	Nut Lock (Nylon) 0.375nc grB pl	5

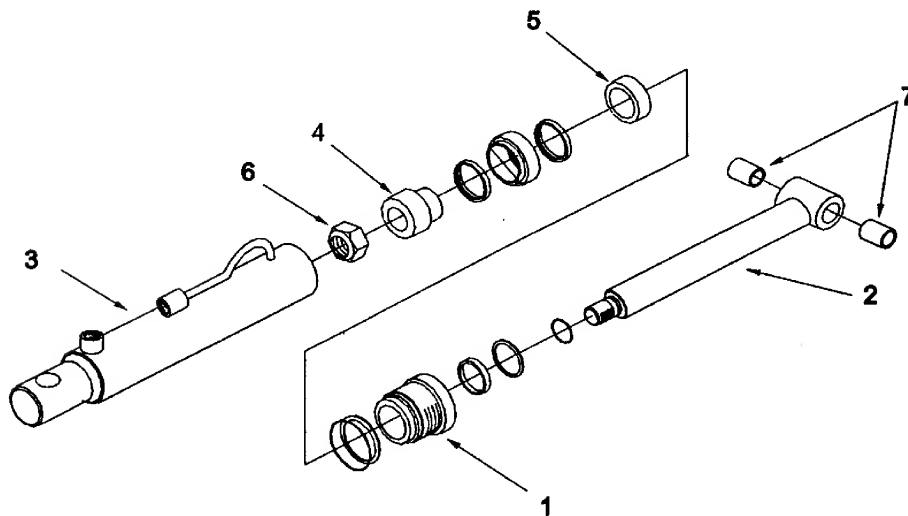
**295 LOADER****Plumbing Parts Table**

<b>Item</b>	<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>
1		Bucket Cylinder	2
2		Lift Cylinder	2
3	812973	3/8 x 12 Hose 3/4 MORB x 3/4 SWFJIC	4
4	811754	3/8 x 18 Hose 3/4 MORB x 3/4 SWFJIC	2
5	812947	3/8 x 22 Hose 3/4 SWFJIC x 3/4 SWFJIC	2
6	114526	Tubing - Lift Cyl. Bottom Raise	1
7	114527	Tubing - Lift Cyl. Top Drop	1
8	113031	Tubing - Lift Cyl. Top Drop Common (23.0")	2
9	114528	Tubing - Bucket Cyl. Bottom Rollback	1
10	114529	Tubing - Bucket Cyl. Top Dump	1
11	112837	Tubing - Bucket Cyl. Cross Tube	2
12	812128	Elbow 90 3/4 MJIC x 3/4 MJIC	4
13	811414	Elbow 90 3/4 MORB x 3/4 MJIC	2
14	812069	Tee 3/4 MJIC	4
15	11362	Clip Pipe Std.	11
16	81344	Nut Lock (Nylon) 0.375nc grB pl	5

## Hydraulic Cylinder Assembly

Description	Bucket Cylinder	Lift Cylinder	
Diameter	2.00"	2.00"	2.50"
Stroke	20.63"	20.63"	20.63"
Retracted Length	32.00"	33.00"	33.00"
Extended	52.63"	53.63"	53.63"
Cylinder Assembly No.	24646	24644	24980
Seal Kit No.	X1348	X1349	x1110
Shaft Diameter	1.25"	1.50"	1.50"

Item	Description	Bucket Cylinder	Lift Cylinder	
1	Head Plate	24516	24522	24540
2	Shaft Weldment	113799	114525	113120
3	Cylinder Tube Weldment	24647	24645	24979
4	Piston Half (Wide)	114520	114520	113217
5	Piston Half (Narrow)	114521	114521	113216
6	Self-Locking Nut	812655	810457	810457
7	Shaft Bushing	113577	113766	113766



### NOTES:

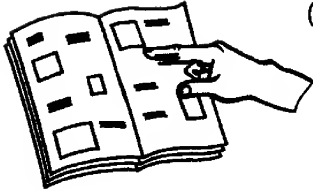
1. Bucket cylinder shown
2. All cylinder seals are contained in corresponding seal kit.



**CAUTION:** Maximum pressure - 3000 psi

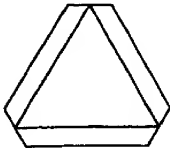
# WARNING!

LOOK OUT FOR CHILDREN.  
TEACH YOUR CHILDREN SAFETY.  
(INFORM THEM OF DANGERS AROUND MACHINES)



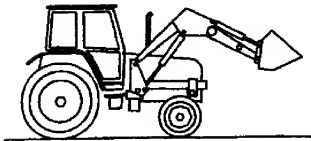
MANUAL MUST BE READ AND  
UNDERSTOOD BY OPERATOR.

## TRANSPORT

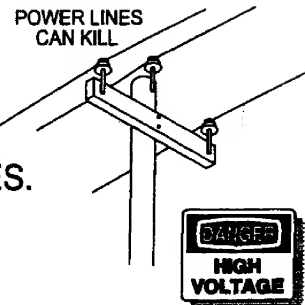


EMBLEMS MUST BE VISIBLE

ALWAYS MOVE EQUIPMENT IN  
LOW OR DOWN POSITION  
ESPECIALLY AROUND POWER LINES.



NEVER LEAVE EQUIPMENT IN  
RAISED POSITION.



## SERVICE

SERVICE EQUIPMENT ONLY  
WHEN STOPPED AND WITH  
LIFT LOCKS IN PLACE AS SHOWN.

KEEP ALL GUARDS AND  
SHIELDS IN PLACE.

REPLACE DAMAGED OR WORN  
PARTS. FRAYED CABLES AND  
HOSES ARE DANGEROUS.

DO NOT CHANGE FACTORY SETTINGS.

KEEP DECALS CLEAN AND LEGIBLE.  
(REPLACEMENTS NORMALLY AVAILABLE)

